



651285



March 25, 2003

Mr. Frank Faranca
Case Manager
NJDEP
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
CN 028
Trenton, NJ 08625-0028

RE: NJPDES-DGW Permit 0086487 Effective March 1, 2000

Dear Mr. Faranca:

Two copies of the Discharge to Groundwater Report consisting of one (1) T-VWX-014, seven (7) VWX-015 Groundwater Analysis – Monitoring Well reports and report Sections 1.0 through 8.0 for the January through March 2003 quarter are enclosed.

Detection Monitoring was performed in accordance with Part 4-DGW Table 2, using the Ground Water Sampling and Analysis Plan approved in April 1996.

Lenox inspection logs were reviewed and a summary of the logs for the quarter is enclosed.

The “Mann-Whitney U-Test” statistical analysis of the ground water TCE results from the five (5) sentinel wells over eight (8) sampling quarters was rolled forward Thirteen (13) quarters to cover the January 2003 data and is included in section 7 of the report. The null-hypothesis is accepted for sentinel wells MW-75, MW-76, MW-78 and MW-79A and we cannot statistically conclude that the TCE concentrations are decreasing for the thirteenth quarter’s data set. The null-hypothesis is **not accepted** for sentinel well MW-77 and we can statistically conclude that the TCE concentration is decreasing for the thirteenth quarter’s data set. In addition, MW-75 has been non-detect for the past fourteen consecutive quarters respectively.

The **bold** data in the tables denotes elevated results, which exceed the site-specific GWQC’s for lead (10ug/l) and zinc (36.7 ug/l) as determined by calculating their arithmetic means from data reported in a 3-year study. Trichloroethylene levels are compared to the New Jersey limit of 1.0 ppb. Please note:

- MW-4, MW-72, MW-73 and MW-74 showed elevated levels of total lead, but not dissolved lead;
- MW-3, MW-4, MW-15, MW-17, MW-25 and B-31 showed elevated levels of both total and dissolved zinc, while MW-72, MW-73 and MW-74 showed only elevated total zinc

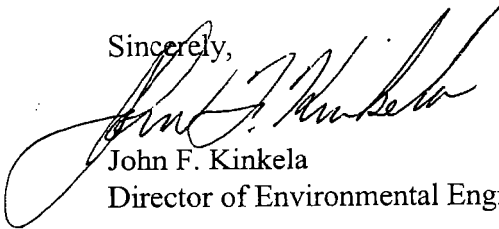
Mr. Frank Faranca
March 25, 2003
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Re: NJPDES-DGW Permit 0086487 Effective March 1, 2000

- Of the fifteen (15) wells sampled for TCE this quarter, seven (7), MW-15, B-31, B-59, MW-76, MW-77, MW-78, and MW-79A were higher than the last quarter. Four (4) wells decreased, MW-10, MW-12S, MW-25 and MW-81. Four (4) wells, MW-1, MW-13, MW-75, and MW-80, remained the same – all non-detect;
- TCE was elevated in three (3) of the five (5) downgradient sentinel wells, MW-77, MW-78, and MW-79A. These (3) sentinel wells all decreased;
- Note that all three (3) Field Blanks contained cis-1,2-dichloroethene at concentrations ranging from 2.7 to 3.2-ug/L. The volatile organic compound cis-1,2-dichloroethene was detected in, MW-15, B-31 and MW-79A and trans-1-2-dichloroethene was detected in MW-79A. TCE daughter species were not detected in any other wells;
- The Monthly Daily Average Flows for the quarter were 346,670 gallons per day for December 2002 and 348,233 gallons per day for January 2003 and 345,786gallons per day for February 2003;
- GAC Treatment System influent, mid effluent, filtered and unfiltered, water samples contained elevated zinc (at 90, 0 and 140 ug/L – filtered – and 170, 30 and 110 ug/L – unfiltered - - respectively). The zinc is attributed to the higher zinc levels previously observed in B-31 and other wells;
- Lead was detected in the GAC Treatment System unfiltered, influent sample at 3 ug/L and the filtered, influent sample at 2 ug/L . Lead was not detected in the filtered or unfiltered, mid and effluent water samples;
- The GAC treatment system was last rebedded on July 23, 2002.

Please call (609) 965-8272 if there are any questions.

Sincerely,



John F. Kinkela
Director of Environmental Engineering

Enclosures -Pomona DGW and TCE Quarterly Groundwater Monitoring Report – January 2003
Monitoring Round
-Summary of Inspection Logs – January through March 2003 Quarter

bcc: J.H. Ennis (w/attachments)
L.A. Fantin, Lenox (w/attachments)
Andrew Park (w/attachments),
File

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Form T-VWX-14

MONITORING REPORT - TRANSMITTAL SHEET

NJPDES No.

0086487

REPORTING PERIOD

MO YR MO YR

0103 thru 0303

PERMITEE:

Name LENOX INCORPORATED
Address 100 LENOX DRIVE
LAWRENCEVILLE, NEW JERSEY 08648

FACILITY:

Name LENOX CHINA, A DIVISION OF LENOX INCORPORATED
Address TILTON ROAD
POMONA, NEW JERSEY 08240 (County) ATLANTIC
Telephone (609) 965-8272

FORMS ATTACHED (Indicate Quantity of Each)

SLUDGE REPORTS - SANITARY

☐ T-VWX-007 ☐ T-VWX-008 ☐ T-VWX-009

SLUDGE REPORTS - INDUSTRIAL

☐ T-VWX-010A ☐ T-VWX-010B

WASTEWATER REPORTS

☐ T-VWX-011 ☐ T-VWX-012 ☐ T-VWX-013A

GROUNDWATER REPORTS (As per permit)

☒ VWX-015 ☐ VWX-016 ☐ VWX-017

NJPDES DISCHARGE MONITORING REPORT

☐ EPA FORM 3320-01

OPERATING EXCEPTIONS

YES NO

DYE TESTING	<input type="checkbox"/>	<input type="checkbox"/>
TEMPORARY BYPASSING	<input type="checkbox"/>	<input type="checkbox"/>
DISINFECTION INTERRUPTION	<input type="checkbox"/>	<input type="checkbox"/>
MONITORING MALFUNCTIONS	<input type="checkbox"/>	<input type="checkbox"/>
UNITS OUT OF OPERATION	<input type="checkbox"/>	<input type="checkbox"/>
OTHER	<input type="checkbox"/>	<input type="checkbox"/>

(Detail any "yes" on reverse side
in appropriate space.)

AUTHENTICATION -

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

PRINCIPAL EXECUTIVE OFFICER or
DULY AUTHORIZED REPRESENTATIVE

LICENSED OPERATOR

Name _____

Grade & Registry No. _____

Signature _____

Name JOHN F. KINKELA

Title DIR. OF ENVIRONMENTAL ENGINEERING

Signature *John F. Kinkela* 3-25-03

LENOX CHINA
A DIVISION OF LENOX, INC.
POMONA, NEW JERSEY

POMONA DGW AND TCE
QUARTERLY GROUNDWATER
MONITORING REPORT
JANUARY 2003 MONITORING ROUND

PROJECT #34290.000/35221.001
MARCH 2003

Office Location:

GANNETT FLEMING
202 Wall Street
Princeton, New Jersey 08540

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<u>No.</u>	<u>Description</u>
1	Groundwater Flow Map – January 28, 2003
2	Groundwater Flow Map – January 28, 2003 – Shallow Wells
3	Groundwater Flow Map – January 28, 2003 – Deep Wells
4	Extent of Trichloroethene in Groundwater – January 29-31, 2003
5	Residential Well Sampling Location Map

APPENDICES

APPENDIX A – Groundwater Sampling Logs

APPENDIX B – Groundwater Contour Map Report Form

APPENDIX C – Laboratory Data Reports (Bound Separately)

1.0 INTRODUCTION

This report summarizes the results of the groundwater monitoring programs that satisfy the requirements outlined in Lenox's NJPDES Discharge to Groundwater (DGW) permit (permit number NJ0086487) and the Memorandum of Agreement (MOA) between Lenox and NJDEP. All groundwater monitoring and analytical procedures were conducted in accordance with the protocols outlined in the most recently revised Groundwater Sampling and Analysis Plan (GWSAP) and Supplemental Groundwater Sampling and Analysis Plan (SGWSAP) approved by NJDEP.

This report presents the DGW and MOA sampling program data in a single document. The report components are as follows:

- Detection Monitoring Program
- GAC Treatment System Monitoring Program
- Depth to Water and Water Level Elevation Measurements
- TCE Monitoring Program
- SWMU No. 2 and Area of Concern Monitoring Program
- Classification Exception Area/Statistical Analysis Program
- Residential Well Sampling

The first three items satisfy the DGW permit monitoring requirements while the remaining items fulfill the requirements of the MOA.

2.0 DETECTION MONITORING PROGRAM (DGW)

The quarterly detection monitoring program is covered by the GWSAP and consists of the following for the first quarter:

- Sample monitoring wells MW-1, MW-3, MW-4, MW-6, MW-9 and MW-10.
- Analyze all samples for total suspended solids (TSS), total dissolved solids (TDS), color, sulfate and total and dissolved sodium, lead and zinc. Samples from MW-1 and MW-10 are also analyzed for total and dissolved iron. MW-1 and MW-9 are also analyzed for ammonia nitrogen.
- Specific conductivity, pH, temperature and dissolved oxygen are measured in the field during purging and prior to sample collection.

Table 1, Section 2 summarizes the results of the current sampling event. The full laboratory data report is provided in Appendix C. Tables 2 through 7 summarize historical sampling results for each well since 1995.

The January 2003 monitoring results are summarized below:

- Total lead concentrations ranged from less than the laboratory reporting limit of 3.0 micrograms per liter ($\mu\text{g/l}$) to 11.4 $\mu\text{g/l}$, with the highest concentration in the sample from MW-4. Dissolved lead concentrations ranged from less than the laboratory reporting limit of 3.0 $\mu\text{g/l}$ to 8.4 $\mu\text{g/l}$, with the highest concentration in the sample from MW-3.
- Total zinc concentrations ranged from less than the laboratory reporting limit of 20 $\mu\text{g/l}$ to 1,540 $\mu\text{g/l}$, with the highest concentration also in the sample from MW-3. Dissolved zinc concentrations ranged from less than the laboratory reporting limit of 20 $\mu\text{g/l}$ to 1,570 $\mu\text{g/l}$, with the highest concentration also in the sample from MW-3.

- Total sodium concentrations ranged from 7,640 µg/l to 55,000 µg/l, with the highest concentration in the sample from MW-9. Dissolved sodium concentrations ranged from 7,570 µg/l to 51,400 µg/l, with the highest concentration also in the sample from MW-9.
- Iron was analyzed only in the samples from MW-1 and MW-10. Total iron was detected in MW-1 and MW-10 at concentrations of 624 µg/l and 761 µg/l, respectively. Dissolved iron was not detected in either sample at concentrations exceeding the 100 µg/l laboratory reporting limit.
- TDS concentrations ranged from 56 milligrams per liter (mg/l) in MW-1 to 242 mg/l in MW-9. TSS concentrations ranged from less than the 4.0 mg/l laboratory reporting limit to 15.0 mg/l, with the highest concentration detected in MW-10.
- Color concentrations ranged from less than the laboratory detection limit of 5 color units to 15 color units in MW-1 and MW-2 (the duplicate of MW-10).
- Sulfate concentrations ranged from less than the laboratory detection limit of 20 mg/l to 80.8 mg/l, with the highest concentration detected in MW-9.
- Ammonia-nitrogen concentrations were less than the laboratory detection limit of 0.10 mg/l in MW-1 and 0.17 mg/l in MW-9.

3.0 GAC TREATMENT SYSTEM MONITORING PROGRAM (DGW)

Groundwater samples from the GAC unit influent, mid-point, and effluent sampling ports were analyzed for TCE and its breakdown products (1,1-DCE, cis/trans 1,2-DCE, and vinyl chloride), total and dissolved iron, lead, and zinc, TDS, and TSS. The analytical results are summarized in Table 1, Section 3.

The January 2003 GAC monitoring results are summarized below:

- The GAC influent sample contained TCE at 5.55 $\mu\text{g/l}$. The mid-point and the effluent samples did not contain TCE at concentrations exceeding the 0.26 $\mu\text{g/l}$ laboratory reporting limit.
- Cis-1,2-dichloroethene was detected in the influent sample at a concentration of 0.22 $\mu\text{g/l}$. It was not detected in the mid-point or effluent samples.
- 1,1-dichloroethene, trans-1,2-dichloroethene and vinyl chloride were not detected in the influent, mid-point or effluent samples at concentrations greater than their respective laboratory reporting limits.
- Lead concentrations in the unfiltered influent, mid-point and effluent samples were 3 $\mu\text{g/l}$, <1 $\mu\text{g/l}$ and <1 $\mu\text{g/l}$, respectively. Lead concentrations in the filtered samples were 2 $\mu\text{g/l}$, <1 $\mu\text{g/l}$ and <1 $\mu\text{g/l}$, respectively.
- Zinc concentrations in the unfiltered influent, mid-point and effluent samples were 90 $\mu\text{g/l}$, 40 $\mu\text{g/l}$ and 140 $\mu\text{g/l}$, respectively. Zinc concentrations in the filtered samples were 70 $\mu\text{g/l}$, 30 $\mu\text{g/l}$ and 110 $\mu\text{g/l}$, respectively.

- Iron concentrations in the unfiltered influent, mid-point and effluent samples were 190 $\mu\text{g/l}$, 170 $\mu\text{g/l}$ and 180 $\mu\text{g/l}$, respectively. Iron concentrations in the filtered samples were 70 $\mu\text{g/l}$, 80 $\mu\text{g/l}$ and 110 $\mu\text{g/l}$, respectively.
- TDS concentrations in the influent, mid-point and effluent samples were 132 mg/l, 139 mg/l and 132 mg/l, respectively.
- TSS concentrations in the influent, mid-point and effluent samples were <1.2 $\mu\text{g/l}$, <1.3 $\mu\text{g/l}$ and <1.3 mg/l, respectively.

**LENOX CHINA FACILITY AND ADJACENT AREA
POMONA, NEW JERSEY**

TABLE 1 SECTION 3

GAC TREATMENT SYSTEM SAMPLING RESULTS, JANUARY 2003

Sample ID Sample Date	Permit Limits	PO-GAC-INF 1/9/03	PO-GAC-MID 1/9/03	PO-GAC-EFF 1/9/03	Percent Removal
<i>Volatile Organic Compounds (µg/l)</i>					
Trichloroethene (TCE)	1.0	5.55 ✓	<0.26 ✓	<0.26 ✓	97.7%*
1,1-Dichloroethene	2.0	<0.24 ✓	<0.24 ✓	<0.24 ✓	NA
cis-1,2-Dichloroethene	2.0	0.22 ✓	<0.17 ✓	<0.17 ✓	NA
trans-1,2-Dichloroethene	2.0	<0.12 ✓	<0.12 ✓	<0.12 ✓	NA
Vinyl chloride	5.0	<0.35 ✓	<0.35 ✓	<0.35 ✓	NA
<i>Metals (µg/l)</i>					
Iron (Unfiltered)	NL	190 ✓	170 ✓	180 ✓	NA
Iron (Filtered)	NL	70 ✓	80 ✓	110 ✓	NA
Lead (Unfiltered)	NL	3 ✓	<1 ✓	<1 ✓	NA
Lead (Filtered)	NL	2 ✓	<1 ✓	<1 ✓	NA
Zinc (Unfiltered)	NL	90 ✓	40 ✓	140 ✓	NA
Zinc (Filtered)	NL	70 ✓	30 ✓	110 ✓	NA
TDS (mg/l)	NL	132 ✓	139 ✓	132 ✓	NA
TSS (mg/l)	NL	<1.2 ✓	<1.3 ✓	<1.3 ✓	NA

Notes:

µg/l - Micrograms per liter

NL - No limit

mg/l - Milligrams per liter

NA - Not applicable

* - Results less than the laboratory minimum detection limit were considered to be one half the minimum detection limit

Values in **bold** exceed the site specific Groundwater Quality Criteria of 1.0 µg/l for TCE.

4.0 DEPTH TO WATER, WATER LEVEL ELEVATIONS, AND TREATMENT SYSTEM FLOW MONITORING (DGW)

4.1 Depth to Water and Water Level Elevations

The January 28, 2003 depth to water and water level elevation data is summarized in Table 1, Section 4. Depths to water in the wells on the south and north sides of the plant that screen the same interval as the recovery wells were used to develop the water level elevation and groundwater flow map (Figure 1). As shown in Figure 1, the groundwater flow direction is to the northeast, which is consistent with previous measurements. In early July 2002 Lenox rerouted the GAC treatment system effluent to the Blue Heron Pines Golf Course on Tilton Road for use as spray irrigation on the golf course property. The lack of groundwater mounding beneath Recharge Area Nos. 1 and 2 on the Lenox property is a direct result of the modified water management approach.

The depth to water measurements in the well points installed downgradient of the recovery wells were plotted to develop the water level elevation and groundwater flow direction maps shown in Figures 2 and 3.

4.2 Treatment System Flow Monitoring

In a letter to Lenox dated April 18, 2000, NJDEP requested that Lenox propose an "Average Daily Volume" (ADV) that would represent the minimum pumping volume required to adequately capture the TCE plume. The ADV would be calculated by dividing the total volume of groundwater extracted by the recovery system each month by the number of days in the month and would be reported quarterly to NJDEP. In a letter to NJDEP dated May 19, 2000, Lenox proposed an ADV of 268,000 gallons per day, which was based on the results of groundwater modeling and the empirical water level and groundwater chemistry data developed since the recovery system started in 1991.

During the period December 1 through December 31, 2002, the calculated ADV was 346,670 gallons per day. During the period January 1 through January 31, 2003, the calculated ADV was 348,233 gallons per day. During the period February 1 through February 28, 2003, the calculated ADV was 345,786 gallons per day.

LENOX CHINA FACILITY AND ADJACENT AREA
POMONA, NEW JERSEY

TABLE 1 SECTION 4

WATER LEVEL MEASUREMENTS, JANUARY 28, 2003

Well No.	Measuring Point Elevation (ft. above mean sea level)	Depth to Water (ft. below MP)	Water Level Elevation (ft. above mean sea level)
P1	65.69	7.50	58.19
P1A	66.32	8.04	58.28
P1B	66.34	8.08	58.26
P5	66.74	6.92	59.82
P5A	66.74	8.77	57.97
P8A	70.02	11.57	58.45
P8B	70.07	10.92	59.15
P9A	70.90	12.87	58.03
P9B	70.97	12.99	57.98
P9C	71.31	13.05	58.26
MW1	69.28	11.35	57.93
MW3	67.09	10.00	57.09
MW4	66.98	7.07	59.91
MW5	64.17	8.46	55.71
MW6	65.08	8.38	56.70
MW7	67.31	10.20	57.11
MW8	67.16	9.19	57.97
MW9	69.51	12.94	56.57
MW10	63.51	6.98	56.53
MW11	63.05	7.47	55.58
MW12D	62.89	7.05	55.84
MW12S	62.62	6.68	55.94
MW13	64.66	8.41	56.25
MW14D	63.63	7.43	56.20
MW14S	63.64	7.40	56.24
MW15	66.07	9.20	56.87
MW16	62.07	6.60	55.47
MW17	62.09	6.51	55.58
MW23	61.49	6.34	55.15
MW23A	61.78	6.66	55.12
MW24	62.60	7.26	55.34
MW25	61.13	6.12	55.01
MW25A	61.29	6.21	55.08
MW25B	61.22	6.15	55.07
MW26A (B30A)	62.48	7.49	54.99
MW26B (B30B)	61.65	6.67	54.98
MW72	64.19	7.75	56.44
MW73	63.06	6.41	56.65
MW74	62.56	6.39	56.17
MW75	60.15	5.19	54.96
MW76	60.60	5.81	54.79
MW77	60.41	5.65	54.76
MW78	59.84	4.91	54.93
MW79A	60.51	5.50	55.01
MW80	62.49	5.98	56.51
MW81	61.90	6.58	55.32
B31	62.19	7.27	54.92
B32	63.29	8.37	54.92
B53	62.31	6.56	55.75
B54	62.39	6.71	55.68
B59	60.02	5.51	54.51
B66	61.71	7.10	54.61
B66A	61.60	6.78	54.82
B66B	61.86	7.03	54.83
B67	62.29	7.61	54.68
B70A	61.39	6.26	55.13
B71	62.31	7.62	54.69
PZ1S	60.27	5.60	54.67
PZ1D	60.52	6.10	54.42
PZ2S	60.52	5.81	54.71
PZ2D	60.70	6.18	54.52
PZ3S	61.47	6.76	54.71
PZ3D	61.60	6.89	54.71
PZ4S	60.80	6.02	54.78
PZ4D	61.09	6.35	54.74
PZ5S	60.47	5.52	54.95
PZ5D	60.56	5.71	54.85
PZ6S	60.79	5.91	54.88
PZ6D	60.73	5.86	54.87

**LENOX CHINA FACILITY AND ADJACENT AREA
POMONA, NEW JERSEY**

TABLE 1 SECTION 5

SUMMARY OF TCE CONCENTRATIONS IN GROUNDWATER (JULY, 2000-JAN. 2003)

Well	January 21-23, 2002	April 8-10, 2002	May 1, 2002	July 17-19, 2002	October 15-17, 2002	January 29-30, 2003
MW1	<0.30	<0.30	-	<0.15	<0.15	<0.15
MW10	2.6/2.7	8.6/8.5	-	6.4	6.8	3.9
MW12S	1.4	1.4	-	1.8	1.7	1.6
MW12D	-	6.0	-	-	-	-
MW13	<0.30	<0.30	-	<0.15	<0.15	<0.15
MW15	1.3	1.9	-	1.3	0.59	2.2
MW23	-	61.7	-	-	-	-
MW25	9.0	6.4	-	4.1	3.4	2.5
B31 (MW27)	11.1	10.8	-	1.8	6.6	24.4
B32 (MW28)	-	13.7	-	-	-	-
B53	-	6.2	-	-	-	-
B54	-	87.4	-	-	-	-
B59	1.3	0.90	-	0.60	<0.15	0.62 J
B66	-	41.0	-	-	-	-
B70A	-	<0.30	-	-	-	-
B71	-	0.47	-	-	-	-
MW75	<0.30/<0.30	<0.30/<0.30	<0.30	<0.15/<0.15	<0.15/<0.15	<0.15/<0.15
MW76	<0.30	0.45	0.41	<0.15	<0.15	0.39 J
MW77	2.5	2.3	2.2	2.5	1.9	2.3
MW78	1.4	1.3	1.2	1.6	1.0	1.7
MW79A	3.8	3.8	4.3	6.0	3.7	6.4
MW80	<0.30	<0.30	-	<0.15	<0.15	<0.15
MW81	0.48	0.47	-	0.62	0.53	0.50 J
GAC Influent	11.0	11.0	-	8.7	7.6	5.6
GAC Effluent	<0.49	<0.26	-	<0.26	<0.26	<0.26
GAC Mid-Vessel	<0.49	<0.26	-	1.0	<0.26	<0.26

Notes:

All samples analyzed by USEPA Method 624, 601 or 502.2/524.2.

All concentrations are presented in micrograms per liter (mg/l).

- = Not analyzed J = Estimated concentration

Values in **bold** font exceed the site specific Groundwater Quality Criteria for TCE (1.0 mg/l).

Table 1, Section 5 Continued...

Well	July 10-12, 2000	October 16-17, 2000	January 22-24, 2001	April 16-18, 2001	July 23-25, 2001	October 16-17, 2001
MW1	< 0.27	< 0.27	< 0.30	< 0.30	<0.30	<0.30
MW10	7.7/8	5.2	11.5	10.7	11.6/12.0	9.6/8.8
MW12S	1.7	1.5	1.7	1.5	1.8	1.4
MW12D	-	-	-	5.3	-	-
MW13	0.76	0.57	0.34	0.63	<0.30	<0.30
MW15	1.3	1.4	1.8	1.9	1.2	0.83
MW23	-	-	-	110	-	-
MW25	20.50	29.70	28.8	22.9	17.6	14.0
B31 (MW27)	6.3	5.1	9.1	15.4	15.7	13.0
B32 (MW28)	-	-	-	14.4	-	-
B53	-	-	-	3.8	-	-
B54	-	-	-	195	-	-
B59	10.2	5.3	5.2	4.6	2.2	1.3
B66	-	-	-	28.9	-	-
B70A	-	-	-	-	-	-
B71	-	-	-	1.9	-	-
MW75	< 0.27	< 0.27	< 0.30	< 0.30	<0.30	<0.30
MW76	< 0.27	< 0.27	0.50	0.46	0.46	0.42
MW77	3.00	2.80	2.8	2.8	2.9	2.8
MW78	0.63	0.91	1.20	0.97	1.2	1.2
MW79A	1.80	2.60	1.0	2.8	2.9	3.1
MW80	< 0.27	< 0.27	< 0.30	< 0.30	<0.30	<0.30
MW81	0.52	< 0.27	1.1	1.2	0.61	0.38
GAC Influent	19	17	3.58	14.0	16.0	15.0
GAC Effluent	< 0.28	< 0.28	< 0.28	0.60	< 0.49	<0.49
GAC Mid-Vessel	< 0.28	< 0.28	< 0.28	< 0.49	< 0.49	<0.49

Notes:

All samples analyzed by USEPA Method 624, 601 or 502.2/524.2.

All concentrations are presented in micrograms per liter (mg/l).

- = Not analyzed J = Estimated concentration

Values in **bold** font exceed the site specific Groundwater Quality Criteria for TCE (1.0 mg/l).

LENOX CHINA
POMONA, NEW JERSEY

TABLE 1 SECTION 2

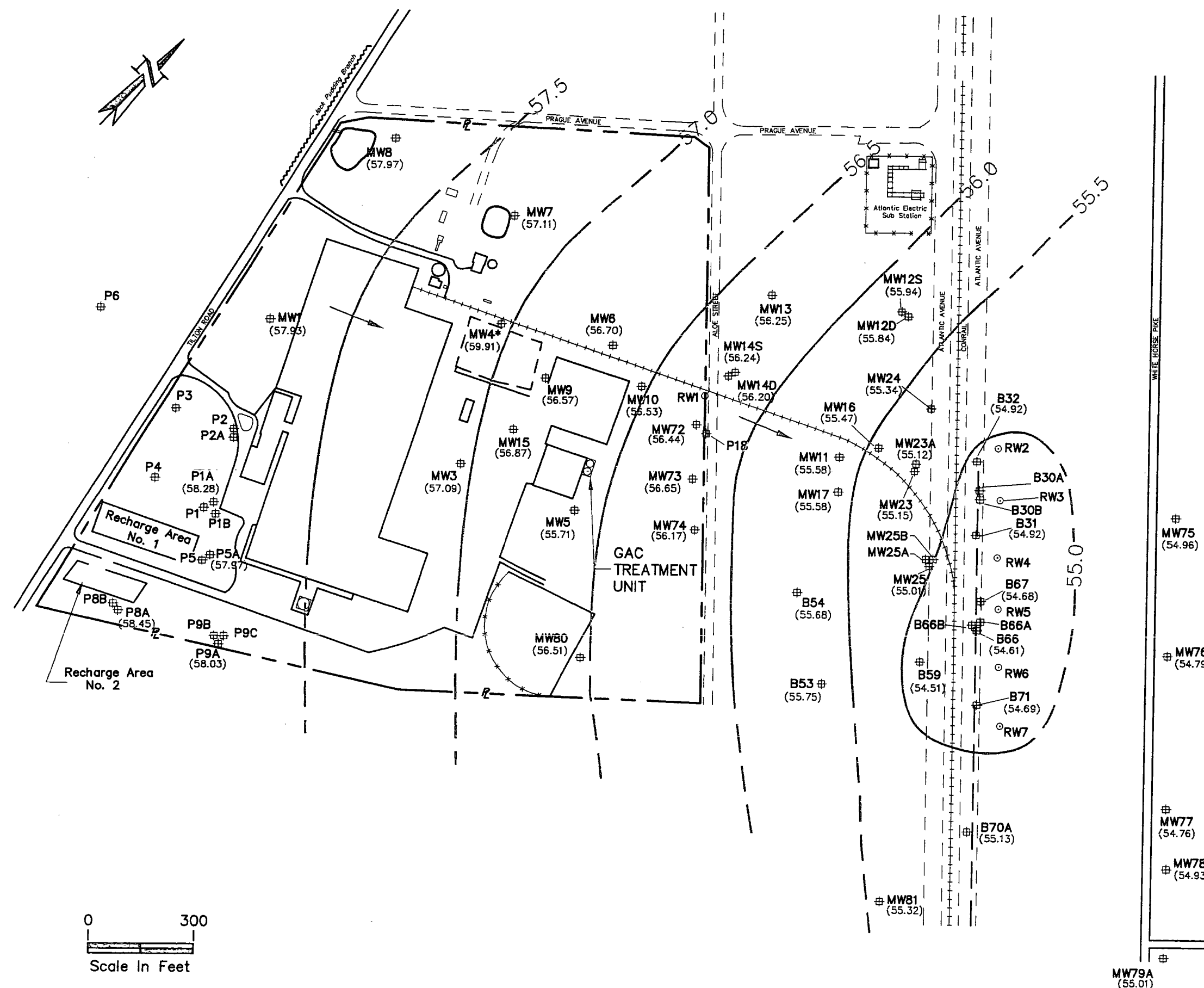
GROUNDWATER CHEMISTRY DATA, JANUARY 2003

Parameter	Units	MW-1	MW-3	MW-4	MW-6	MW-9	MW-10	MW-2 (MW-10 Dup)	FB	TB
pH, Field	pH units	5.11	5.11	5.76	4.26	6.09	5.37	5.37	-	-
Specific Conductance	ms	0.094	0.111	0.169	0.107	0.300	0.132	0.132	-	-
Oxygen, Dissolved	mg/l	9.40	4.60	7.90	7.00	1.50	6.00	6.00	-	-
Temperature, Field	°C	11.5	14.8	11.3	15.1	17.5	16.2	16.2	-	-
Total Suspended Solids	mg/l	4.0	<4.0	12.0	<4.0	<4.0	15.0	11.0	<4.0	-
Total Dissolved Solids	mg/l	56	90	141	61	242	122	118	<10	-
Nitrite-Nitrogen	µg/l	-	-	-	-	-	-	-	-	-
Nitrate-Nitrogen	µg/l	-	-	-	-	-	-	-	-	-
Ammonia-Nitrogen	mg/l	<0.10	-	-	-	0.17	-	-	<0.10	-
Phosphorus, Total as P	µg/l	-	-	-	-	-	-	-	-	-
Total Organic Carbon	µg/l	-	-	-	-	-	-	-	-	-
Color	CU units	15	<5	5	<5	<5	10	15	<5	-
Odor	T.O.N.	-	-	-	-	-	-	-	-	-
Sulfate	mg/l	<20	28.9	67.6	52.0	80.8	42.7	42.5	<20	-
Chromium, Dissolved	µg/l	-	-	-	-	-	-	-	-	-
Iron, Dissolved	µg/l	<100	-	-	-	-	<100	<100	<100	-
Lead, Dissolved	µg/l	<3.0	8.4	6.9	<3.0	<3.0	<3.0	<3.0	<3.0	-
Manganese, Dissolved	µg/l	-	-	-	-	-	-	-	-	-
Sodium, Dissolved	µg/l	11,100	11,400	12,100	7,570	51,400	20,900	21,800	<5,000	-
Zinc, Dissolved	µg/l	<20	1,570	74.4	<20	<20	<20	<20	<20	-
Chromium, Total	µg/l	-	-	-	-	-	-	-	-	-
Iron, Total	µg/l	624	-	-	-	-	761	954	<100	-
Lead, Total	µg/l	<3.0	9.5	11.4	4.7	<3.0	<3.0	6.0	<3.0	-
Manganese, Total	µg/l	-	-	-	-	-	-	-	-	-
Sodium, Total	µg/l	11,800	11,900	12,400	7,640	55,000	20,100	19,600	<5,000	-
Zinc, Total	µg/l	<20	1,540	81.9	<20	<20	<20	<20	<20	-
Chemical Oxygen Demand	µg/l	-	-	-	-	-	-	-	-	-
Acrolein	µg/l	-	-	-	-	-	-	-	-	-
Acrylonitrile	µg/l	-	-	-	-	-	-	-	-	-
Benzene	µg/l	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/l	-	-	-	-	-	-	-	-	-
Bromoform	µg/l	-	-	-	-	-	-	-	-	-
Bromomethane	µg/l	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	µg/l	-	-	-	-	-	-	-	-	-
Chlorobenzene	µg/l	-	-	-	-	-	-	-	-	-
Chloroethane	µg/l	-	-	-	-	-	-	-	-	-
2-Chloroethylvinyl Ether	µg/l	-	-	-	-	-	-	-	-	-
Chloroform	µg/l	-	-	-	-	-	-	-	-	-
Chloromethane	µg/l	-	-	-	-	-	-	-	-	-
Dibromochloromethane	µg/l	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	µg/l	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	µg/l	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	µg/l	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	µg/l	<0.17	-	-	-	-	<0.17	<0.17	2.80	<0.17
Cis-1,2-Dichloroethene	µg/l	<0.16	-	-	-	-	<0.16	0.40 J	<0.16	<0.16
Trans-1,2-Dichloroethene	µg/l	<0.11	-	-	-	-	<0.11	<0.11	<0.11	<0.11
1,2-Dichloropropane	µg/l	-	-	-	-	-	-	-	-	-
Cis-1,3-Dichloropropene	µg/l	-	-	-	-	-	-	-	-	-
Trans-1,3-Dichloropropene	µg/l	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/l	-	-	-	-	-	-	-	-	-
Methylene Chloride	µg/l	<0.47	-	-	-	-	<0.47	<0.47	<0.47	<0.47
1,1,2,2-Tetrachloroethane	µg/l	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/l	-	-	-	-	-	-	-	-	-
Toluene	µg/l	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	µg/l	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	µg/l	-	-	-	-	-	-	-	-	-
Trichloroethene (TCE)	µg/l	<0.15	-	-	-	-	3.9	4.0	<0.15	<0.15
Trichlorofluoromethane	µg/l	-	-	-	-	-	-	-	-	-
Vinyl Chloride	µg/l	<0.14	-	-	-	-	<0.14	<0.14	<0.14	<0.14
Xylenes (total)	µg/l	-	-	-	-	-	-	-	-	-
Sum of Volatile Organic Compounds	µg/l	<0.60	-	-	-	-	4.4	4.6	3.3	<0.60

Notes:

- = Not Analyzed J = Estimated Value

Values in **bold font** exceed the site specific Groundwater Quality Criteria for Lead (10 µg/l), Zinc (36.7 µg/l) and TCE (1.0 µg/l).



LEGEND

- B66 (54.61) # Location Of Monitoring Well With Groundwater Elevation
- RW5 # Location Of Recovery Well
- 55.0 — Line Of Equal Water Level Elevation In Feet Above MSL (Dashed Where Inferred)
- ← Groundwater Flow Direction

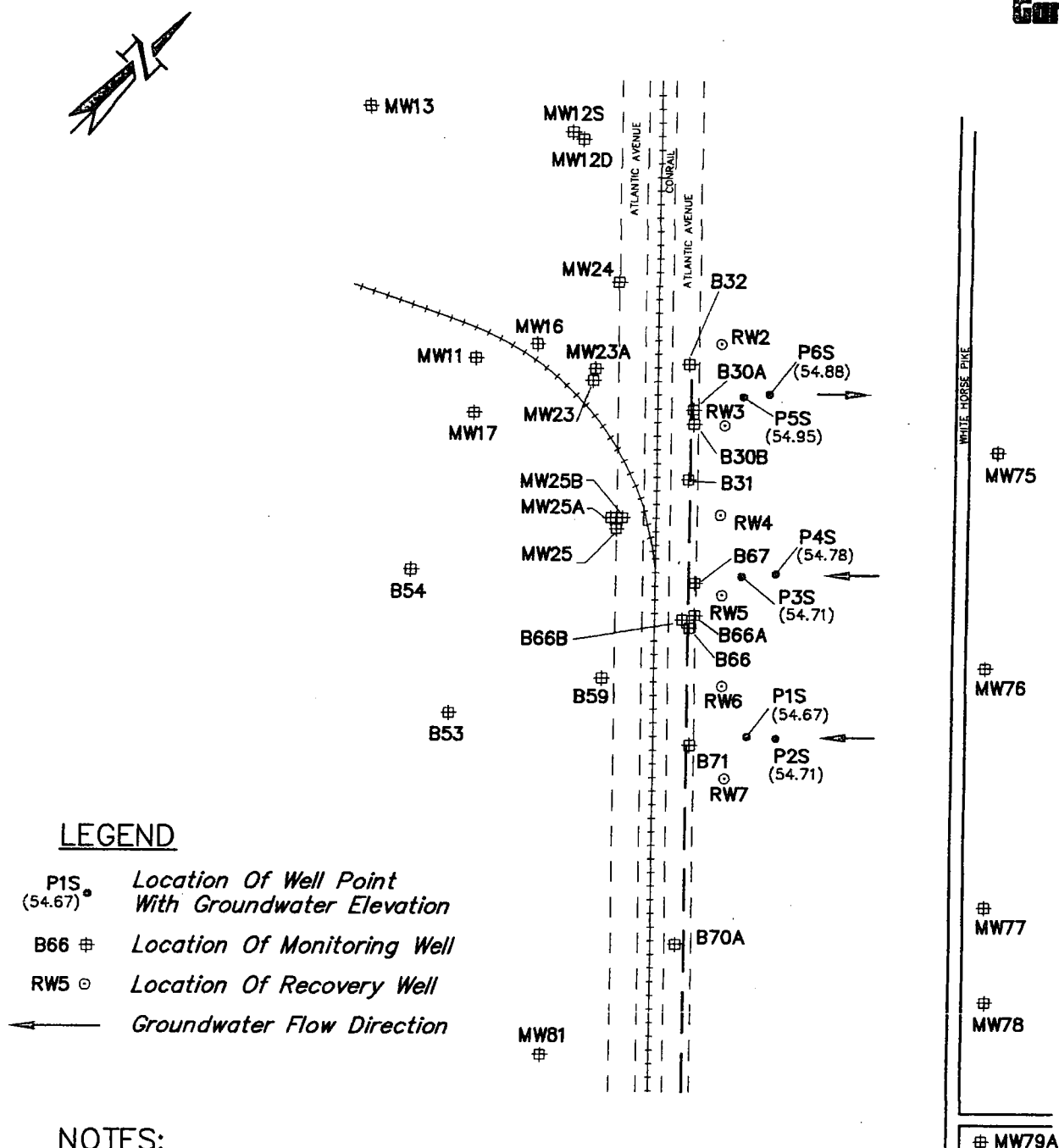
NOTES:

Base map obtained from Geraghty & Miller's August 1992 Groundwater Monitoring Report.

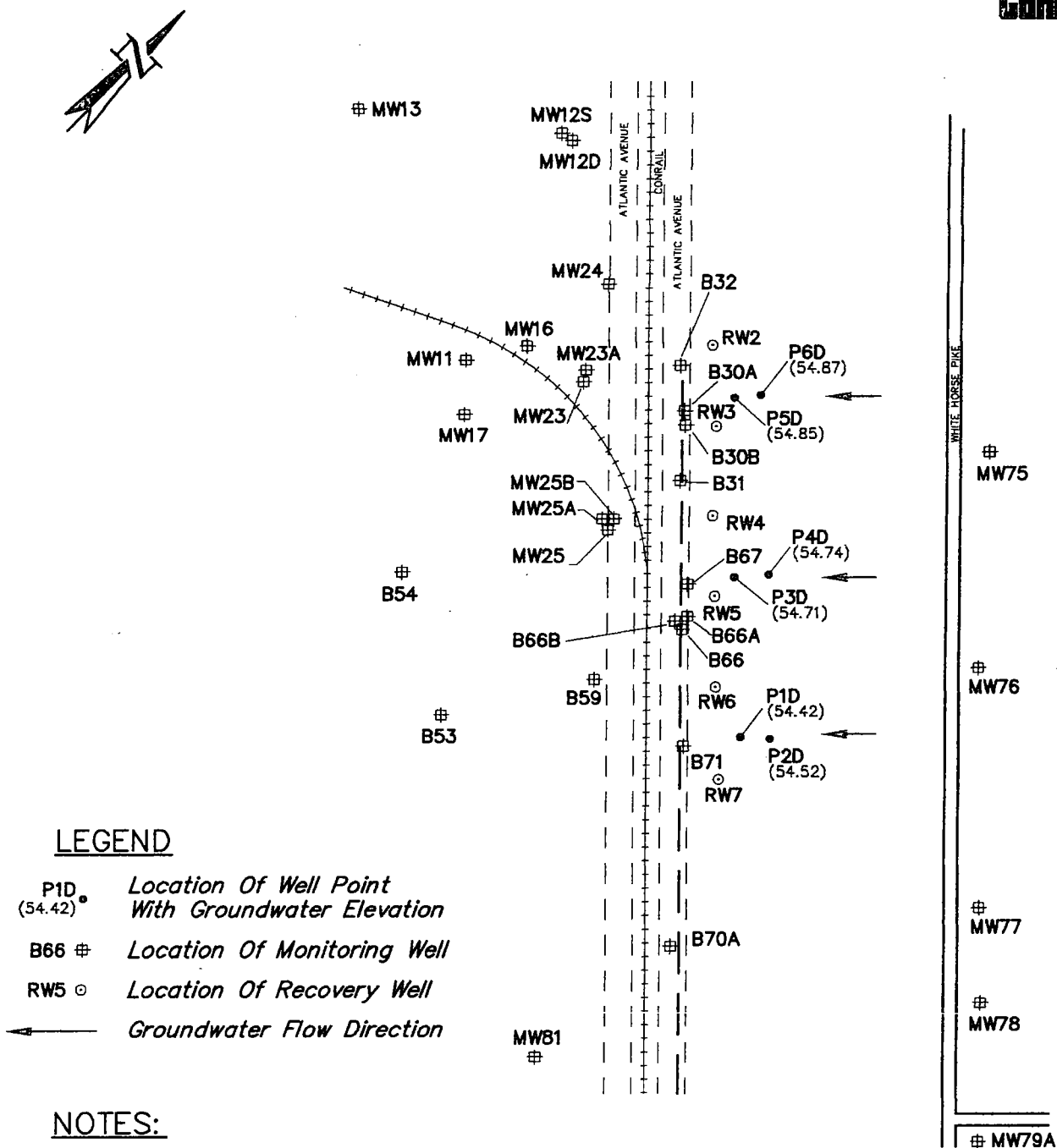
* - Anomalous reading consistent with previous measurements

GROUNDWATER FLOW MAP JANUARY 28, 2003

LENOX CHINA
POMONA, NEW JERSEY

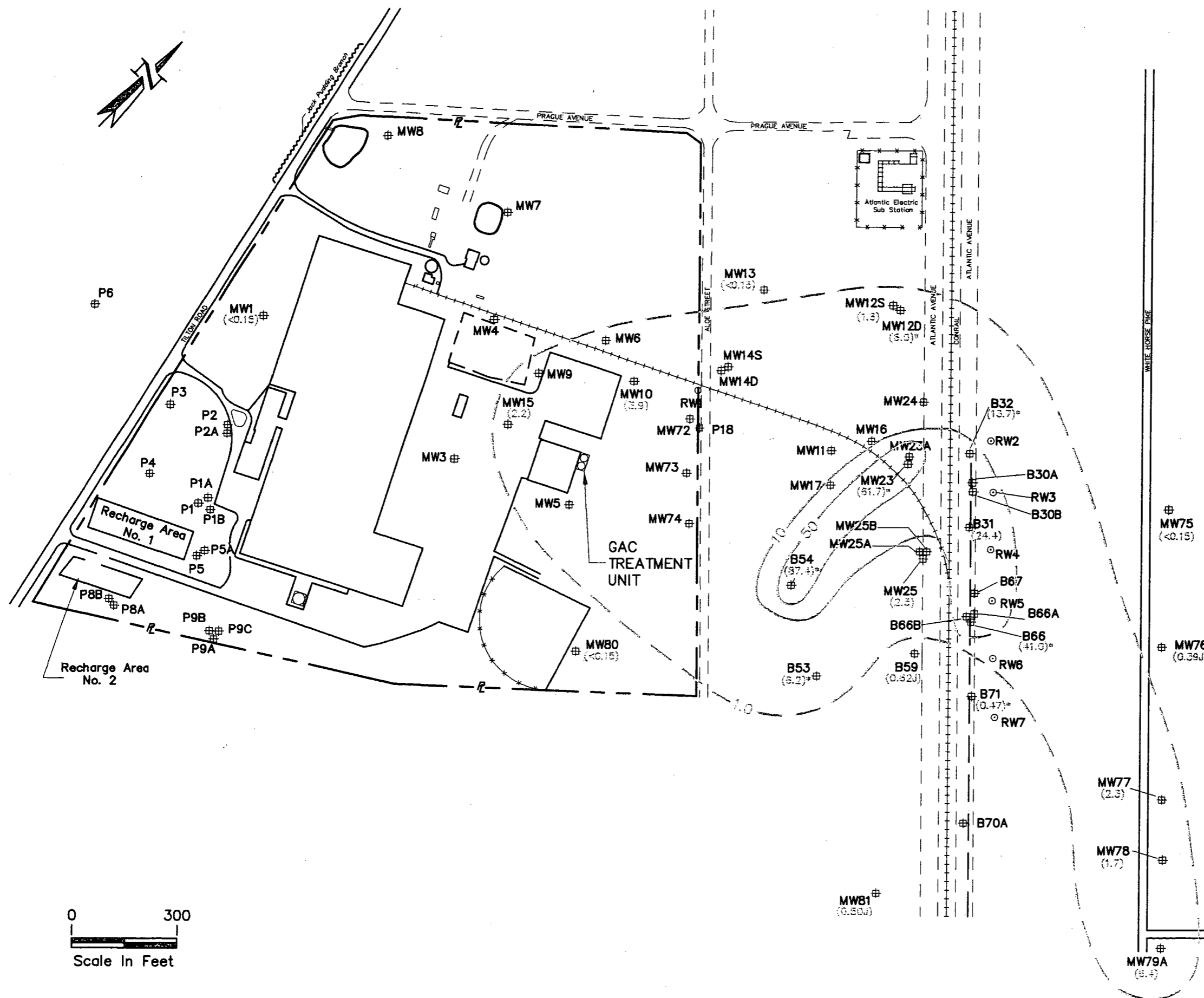


GROUNDWATER FLOW MAP
SHALLOW WELLS
JANUARY 28, 2003
LENOX CHINA
POMONA, NEW JERSEY



GROUNDWATER FLOW MAP DEEP WELLS JANUARY 28, 2003

LENOX CHINA
 POMONA, NEW JERSEY



LEGEND

- MW1 (0.15) # Location Of Monitoring Well With TCE Concentration in ug/l
- RW5 # Location Of Recovery Well
- 1.0 — Line Of Equal TCE Concentration in ug/l (Dashed Where Inferred)

NOTE:

Base Map Obtained From Geraghty & Miller's August 1992 Groundwater Monitoring Report.

* - Indicates results from April 2002 Sampling Event

EXTENT OF TRICHLOROETHYLENE IN GROUNDWATER JANUARY 29-31, 2003

LENOX CHINA
POMONA, NEW JERSEY